

STRATEGIC POLICY RESEARCH

7500 OLD GEORGETOWN ROAD SUITE 810 BETHESDA, MARYLAND 20814 301-718-0111 FAX 301-215-4033

EMAIL spri-info@spri.com

JEFFREY H. ROHLFS

Received an A.B. degree from Amherst College and a Ph.D. in Economics from MIT. He has taught economics at the Stanford Graduate School of Business.

Dr. Rohlfs is a principal of SPR and has been a consultant since 1983. He is an economist who specializes in the telecommunications and mass media industries. He has numerous publications, including theoretical, empirical and policy analyses.

Dr. Rohlfs has consulted on telecommunications and public policy for a variety of clients with regard to ground rules for telecommunications competition, access charging and bypass, regulatory reform, restructuring and privatization in many countries, cellular and PCS services, economic valuation of telecommunications plant, and the importance of telecommunications infrastructure to economic development.

Prior to his career in consulting, Dr. Rohlfs spent 14 years at Bell Labs, rising to Department Head of Economic Modeling Research. While at Bell Labs, Dr. Rohlfs wrote a seminal paper on the theory of network externalities. This theory has been widely cited and applied to universal-service policy and technical standards. Dr. Rohlfs also wrote a seminal empirical analysis on optimal telecommunications pricing and rate rebalancing.

From 1979 to 1981, Dr. Rohlfs was Manager of Microeconomic Analysis at AT&T. He provided analytical support for AT&T's regulatory and public affairs efforts.

Dr. Rohlfs has substantial international consulting experience, including Australia, New Zealand, Mexico, Peru, Jamaica, Puerto Rico, Canada, United Kingdom, Germany, European Union, Japan and Thailand. He has served as an expert witness for the U.K. regulatory authority, OfTel.

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Ph.D., Economics, 1969

AMHERST COLLEGE
A.B., Economics, 1965

EMPLOYMENT

- 1992- STRATEGIC POLICY RESEARCH, Inc. (SPR) — Bethesda, Maryland
Principal. Telecommunications, mass media and public policy consulting services for a variety of clients in the telecommunications industry.
- 1989-1992 NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC. (NERA) — Washington, D.C.
Vice President. Telecommunications, mass media and public policy consulting services for a variety of clients in the telecommunications industry.
- 1983-1988 SHOOSHAN & JACKSON INC. — Washington, D.C.
Principal. Telecommunications, mass media and public policy consulting services for a variety of clients in the telecommunications industry.
- 1981-1983 ECONOMIC MODELING RESEARCH DEPARTMENT,
1978-1979 BELL LABORATORIES — Murray Hill, New Jersey
Department Head. Economics research.
- 1979-1981 MICROECONOMIC ANALYSIS, AT&T — New York, New York
Manager. Analytical support for AT&T's regulatory and public affairs efforts.
- 1975-1978 ECONOMICS RESEARCH, BELL LABORATORIES — Murray Hill,
1969-1974 New Jersey
Member of Technical Staff. Economics research.
- 1974-1975 STANFORD BUSINESS SCHOOL — Stanford, California
Visiting Lecturer. Teaching and research in business economics.
- 1967-1969 CHARLES RIVER ASSOCIATES — Cambridge, Massachusetts
Research Associate. Economics research.

PROFESSIONAL ACTIVITIES

Member, American Economic Association, International Telecommunications Society.

PUBLICATIONS

With John Haring, Calvin S. Monson and Harry M. Shooshan III. *Replacing Competitive Bans with Competitive Safeguards: The Role of Imputation*. Prepared for BellSouth. October 15, 1997.

With John Haring. "Telecommunications Pricing and Competition." *Interconnection and the Internet, Selected Papers from the 1996 Telecommunications Policy Research Conference*. G. L. Rosston and D. Waterman, eds. Lawrence Erlbaum Associates, Inc. 1997. Chapter 3.

With John Haring. "Efficient Competition in Local Telecommunications without Excessive Regulation." *Information Economics and Policy*. I. Vogelsang, guest ed. Elsevier Science B.V. Volume 9, Number 2. June 1997. 119-131.

With Kirsten M. Pehrsson. *One Size Does Not Fit All: The Inadequacy of a Single X-Factor for All Price-Cap Companies*. Submitted before the Federal Communications Commission, *In the Matter of Price Cap Performance Review for Local Exchange Carriers; Access Charge Reform*, CC Docket Nos. 94-1 and 96-262, Attachment to Petition for Reconsideration. July 11, 1997.

With John Haring, Calvin S. Monson and others. *A New Set of "Top-Down" Incremental Cost Measures (Revised)*. Submitted before the Federal Communications Commission, CPD Docket No. 97-2, *Comments of Strategic Policy Research, Inc.* February 18, 1997.

With John Haring. *Economic Perspectives on Access Charge Reform*. Prepared for submission before the Federal Communications Commission on behalf of BellSouth Telecommunications. *In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, and Usage of the Public Switched Network by Information Service and Internet Access Providers*, CC Docket Nos. 96-262, 94-1, 91-213 and 96-263. January 29, 1997.

With Charles L. Jackson and Ross M. Richardson. *The Depreciation Shortfall*. Prepared for submission before the Federal Communications Commission, CC Docket No. 96-262: *USTA Comments*, Attachment 15, filed January 29, 1997; *Reply Comments*, filed February 13, 1997.

With John Haring, Calvin S. Monson and others. *A New Set of "Top-Down" Incremental Cost Measures*. Prepared on behalf of BellSouth Corporation and released at the National Association of Regulatory Utility Commissioners convention. San Francisco, California. November 17, 1996.

With John Haring. *A New Set of Superior Incremental Cost Measures*. Prepared for Bell South. October 25, 1996.

With John Haring, Charles L. Jackson and Harry M. Shooshan III. *The Benefits of Choosing: FCC Specification of an ATV Standard*. Prepared on behalf of Capital Cities/ABC, Inc., CBS, Inc., Fox Television Stations, Inc., the Association for Maximum Service Television, the National Association of Broadcasters and National Broadcasting Company, Inc., for submission before the Federal Communications Commission, *In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*. MM Docket No. 87-268. *Reply Comments of Strategic Policy Research on the Commission's Fifth Further Notice of Proposed Rulemaking*. Filed August 13, 1996.

With John Haring and Calvin S. Monson. *Comments on FCC's Industry Demand and Supply Simulation Model*. Prepared on behalf of BellSouth for submission before the Federal Communications Commission, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*. CC Docket No. 96-98. *Supplemental Comments*. Filed July 8, 1996.

With John Haring, Calvin S. Monson and Harry M. Shooshan III. *Interconnection and Economic Efficiency*. Prepared on behalf of BellSouth for submission before the Federal Communications Commission, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*. CC Docket No. 96-98. *Comments of BellSouth*. Filed May 16, 1996.

With Charles L. Jackson, John Haring, Harry M. Shooshan III and Kirsten M. Pehrsson. *Public Harms Unique to Satellite Spectrum Auctions*. A study prepared for the Satellite Industry Association. March 18, 1996.

With Harry M. Shooshan III and Calvin S. Monson. *Bill-and-Keep: A Bad Solution to a Non-Problem*. Filed before the Federal Communications Commission, *In the Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers* (CC Docket No. 95-185) and *Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Service Providers* (CC Docket No. 94-54). Attachment to the Comments of the United States Telephone Association, March 4, 1996.

With John Haring. *Comments on Pricing Flexibility Issues*. Prepared on behalf of BellSouth Telecommunications for submission before the Federal Communications Commission, *In the Matter of Price Cap Performance Review for Local Exchange Carriers*. CC Docket No. 94-1. January 10, 1996.

"Regulating Telecommunications: Lessons from U.S. Price Cap Experience." *Public Policy for the Private Sector*, Telecommunications Section. The World Bank Group. December 1995.

With John Haring and Harry M. Shooshan III. *Disabilities of Continued Asymmetric Regulation of AT&T*. Prepared for AT&T. June 30, 1995.

With John Haring, Charles L. Jackson, Calvin S. Monson and Morrison & Foerster. *A Proposal for Introducing Competition into the Mexican Telecommunications Market*. Prepared for the Government of Mexico, Secretaria de Comunicaciones y Transportes. June 10, 1994.

With Harry M. Shooshan III. *Diversification and Growth: Achieving Synergies in the Global Entertainment/Information Economy*. Prepared for Rogers Communication, Inc. for submission before the Canadian Radio-television and Telecommunications Commission. May 12, 1994.

With Harry M. Shooshan III. "New investment and the regulatory climate." *Telephony*. May 2, 1994.

With John Haring and Harry M. Shooshan III. *Regulatory Reform for the Information Age: Providing the Vision*. Prepared for the United States Telephone Association. January 11, 1994.

With John Haring and Harry M. Shooshan III. *The U.S. Stake in Competitive Global Telecommunications Services: The Economic Case for Tough Bargaining*. Prepared for AT&T. December 16, 1993.

With Calvin S. Monson. *The \$20 Billion Impact of Local Competition in Telecommunications*. Prepared for the United States Telephone Association. July 16, 1993. Presented to the International Telecommunications Society, Sydney, Australia. July 1994.

With Richard Schmalensee. *Productivity Gains Resulting from Interstate Price Caps for AT&T*. Prepared for AT&T. September 3, 1992. Presented at the Telecommunications Policy Research Conference. Solomons Island, Maryland. October 4, 1993.

With John Haring. *A Theory of Price Discrimination Under Regulated Competition: With Application to Long-Distance Telecommunications*. Presented to International Telecommunications Society, Sophia-Antipolis, France. June 14-17, 1992.

With Harry M. Shooshan III, Kirsten Pehrsson, *et al.* *Electronic Highways: Providing the Telecommunications Infrastructure for Pennsylvania's Economic Future*. Prepared for the Pennsylvania Chamber of Business and Industry jointly by NERA and Price Waterhouse. December 19, 1991.

With Charles L. Jackson and Tracey Kelly. *Estimate of the Loss to the United States Caused by the FCC's Delay in Licensing Cellular Telecommunications*. Commissioned by AT&T. November 8, 1991 (revised). [Presented at the Telecommunications Policy Research Conference. Solomons Island, Maryland. October 1992.]

Differences in Productivity Gains Among Telephone Companies. Prepared for Centel. September 3, 1991.

With others, *The Technology and Economics of Providing Video Services by Fiber Optic Networks: A Response to Johnson and Reed*. A study prepared for the United States Telephone Association. NERA, Washington, D.C. July 20, 1990.

Preserving the Incentive in Incentive Regulation. Before the Federal Communications Commission on behalf of Bell Atlantic, *In the Matter of Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313. Washington, D.C. July 3, 1990.

With Harry M. Shooshan III. *Telecommunications Infrastructure, Productivity, and Economic Development*. Prepared for the United States Telephone Association. Washington, D.C. April 9, 1990.

Economic Issues Relating to Privatization of Telecommunications. Presented at the 8th Annual ITS International Conference. Venice, Italy. March 18-21, 1990.

With Richard J. Gilbert. 'Forecasting Technology Adoption with an Application to Telecommunications Bypass.' *Telecommunications Demand Modelling*. A. de Fontenay, M.H. Shugard, D.S. Sibley, eds. Elsevier Science Publishers B.V. (North-Holland), 1990.

With William E. Taylor. *Incentive Regulation and Estimates of Productivity*. A study prepared for Cincinnati Bell Telephone Company. NERA, Washington, D.C. June 9, 1989.

With Charles L. Jackson, Harry M. Shooshan III and Susan W. Leisner. *'Miles to Go': The Need For Additional Reforms In Capital Recovery Methods*. Presented at the National Economic Research Associates, Inc. Telecommunications In A Competitive Environment Seminar. Scottsdale, Arizona. April 12-15, 1989.

"Bypass and Growth of Demand for Switched Access." A study commissioned by Bell Atlantic, BellSouth and Southwestern Bell. Shooshan & Jackson Inc. Washington, D.C. February 17, 1989.

With Harry M. Shooshan III. *Will Price Caps Correct Major Economic Flaws in the Current Regulatory Process?* Presented at the Twentieth Annual Williamsburg Conference. Williamsburg, Virginia. December 5-7, 1988.

With Harry M. Shooshan III, Charles L. Jackson and Susan W. Leisner. *ONA: Keeping The Promise*. A study commissioned by Bell Atlantic. Washington, D.C. May 1988.

With Harry M. Shooshan III, Charles L. Jackson and Susan W. Leisner. "The Negative Effects of Tax Reform on the Telephone Industry: Making Up the \$15 Billion Difference." Presented at the Fifteenth Annual Telecommunications Policy Research Conference. Airlie, Virginia. September 27-30, 1987. [Also presented to meeting of Communications Committee, National Association of Regulatory Utility Commissioners, February 1987 and Maryland Public Service Commission, May 1987.]

With Harry M. Shooshan III, Charles L. Jackson and Louise A. Arnheim. *Opening the Broadband Gateway: The Need for Telephone Company Entry into the Video Services Marketplace*. Prepared for the United States Telephone Association. Washington, D.C. November 1987. Filed before the Federal Communications Commission in connection with the Notice of Inquiry in the matter of telephone company/cable television cross-ownership rules, Sections 63.54-63.58, CC Docket No. 87-266 (August 1987).

With Susan W. Leisner. "Alternatives to Rate of Return Regulation for Local Telephone Companies." Prepared for The Annenberg Schools of Communications, The Washington Program's Research Forum. Washington, D.C. March 20, 1987.

"Efficient Recovery of NTS Costs." Presented at the Thirteenth Annual Rate Symposium on Pricing Electric, Gas and Telecommunication Services, Today and For the Future. St. Louis, Missouri. February 1987.

With Charles L. Jackson. "Improving the Economic Efficiency of NTS Cost Recovery." Presented at the Fifth Biennial Regulatory Information Conference. Columbus, Ohio. September 3-5, 1986.

With Charles L. Jackson. "Improving the Economic Efficiency of Interstate Access Charges." Presented at the Fourteenth Annual Telecommunications Policy Research Conference. Airlie, Virginia. April 27-30, 1986.

With Charles L. Jackson. *Access Charging and Bypass Adoption*. Shooshan & Jackson Inc. Washington, D.C. 1985. Filed before the National Telecommunications Information Administration, 1985. [Also submitted to the Federal Communications Commission, New Jersey Board of Public Utilities and Pennsylvania Public Utility Commission.]

With Richard J. Gilbert. *Forecasting Technology Adoption*. Shooshan & Jackson Inc. Washington, D.C. 1985.

"Bypass and Access Charging." Presented at Twelfth Annual Telecommunications Policy Research Conference. Airlie, Virginia. 1984.

With G.R. Faulhaber. "Regulation and Market Structure in Telecommunications." Presented at Conference on Economics of Telecommunications: Current Research on Demand, Pricing and Regulation. Northwestern University, Illinois. January 1980.

With others. "Whose Ox Will Be Gored By Alternative Telecommunications Policies." Presented at Eighth Annual Telecommunications Policy Research Conference. Annapolis, Maryland. 1980.

"Economically Efficient Bell System Pricing." AT&T submission to Congress. 1978. Bell Labs Economic Discussion Paper #138. Presented at Seventh Annual Telecommunications Policy Research Conference. Skytop, Pennsylvania. 1979.

"Comments on New Issues in Telecommunications Regulation." *Issues in Public Utility Regulation*. H. Trebing, ed. Institute of Public Utilities. Graduate School of Business Administration, Michigan State University. East Lansing, Michigan. 1979.

"Interdependent Demand and Optimal Telecommunications Pricing." Provided to AT&T for submission in Federal Communications Commission Docket 20003. 1977. Presented at Fifth Annual Telecommunications Policy Research Conference. Airlie, Virginia. 1977.

"Evaluation of Changes in a Suboptimal Economy." *Review of Economic Studies*. Vol. XLIII(2). June 1976.

"A Theory of Interdependent Demand for A Communications Service." *Bell Journal of Economics and Management Science*. Spring 1974.

"Econometric Analysis of Supply in Concentrated Markets." *International Economic Review*. February 1974.

TESTIMONIES

Invited participant in FCC Workshop on Validation of Cost Models. January 16, 1997.

Invited participant in FCC Workshop on Technical Standards for Advanced Television. November 1, 1996.

With Charles L. Jackson. *Quantifying the Costs of Billed Party Preference*. Report filed before the Federal Communications Commission on behalf of American Public Communications Counsel, *In the Matter of Billed Party Preference for 0+ InterLATA Calls*, CC Docket No. 92-77. September 14, 1994.

With Charles L. Jackson. *The Many Costs and Few Benefits of Billed Party Preference*. Before the Federal Communications Commission on behalf of American Public Communications Counsel, *In the Matter of Billed Party Preference for 0+ InterLATA Calls*, CC Docket No. 92-77. August 1, 1994.

With Charles L. Jackson. *Report on Capital Needs of a Telephone Company*. Direct and rebuttal testimony before the United States Tax Court. Docket Nos. 7970-91 and 7971-91. June 1994. [Confidential]

Testimony in *Turner Broadcasting System, Inc., et al., Plaintiffs, v. Federal Communications Commission, et al., Defendants*. United States District Court for the District of Columbia. Docket No. C.A. No. 92-2247 (and related cases C.A. Nos. 92-2292, 92-2494, 92-2495, 92-2558) (TPJ). Expert's Report filed April 21, 1995; Expert Declaration filed May 25, 1995.

With John Haring. *Comments on "Transition Issues."* Prepared for BellSouth for submission at the Federal Communications Commission in CC Docket No. 94-1, *In the Matter of Price Cap Performance Review for Local Exchange Carriers*. April 1994.

With John Haring. *The Absence of a Public Policy Rationale for Applying Affiliate-Transaction Rules to AT&T*. Prepared for AT&T for submission at the Federal Communications Commission in CC Docket No. 93-251, adopted September 23, 1993, Amendment of Parts 32 and 64 of the Commission's Rules to Account for Transactions between Carriers and Their Nonregulated Affiliates, *Notice of Proposed Rulemaking*. December 10, 1993.

With John Haring. Statement re: *In the Matter of Policies and Rules Concerning Rates for Dominant Carriers*. Before the Federal Communications Commission on behalf of AT&T, *Notice of Proposed Rulemaking*, CC Docket No. 87-313. July 6, 1993.

With Harry M. Shooshan III. *Evidence of Strategic Policy Research, Inc.* Before the Canadian Radio-television and Telecommunications Commission. Prepared for Call-Net Telecommunications, Ltd. in connection with Bell Canada, General Increase in Rates, 1993. May 10, 1993.

With John Haring and Harry M. Shooshan III. *Efficient Regulation of Basic-Tier Cable Rates*. Expert report prepared for National Association of Broadcasters in connection with the FCC's rulemaking proceeding on cable rate regulation (MM Docket No. 92-266). January 26, 1993.

With John Haring and Harry M. Shooshan III. *The Competitive Impact of the Proposed Merger between Financial News Network and Consumer News and Business Channel*. Prepared for the Dow Jones/Group W Partnership for submission at the Federal Trade Commission. Washington, D.C. April 11, 1991.

Competition in the Provision of Air-to-Ground Telephone Service. Before the Federal Communications Commission. On behalf of In-Flight Phone Corporation. November 14, 1990.

Testimony on price cap regulation before the Florida Public Service Commission, Docket No. 891246-TL, on behalf of Central Telephone-Florida. October 1, 1990.

Testimony before Puerto Rico legislature on privatization and price-cap regulation of telecommunications. June 1990.

With William E. Taylor. *Analysis of AT&T's Comparison of Interstate Access Charges Under Incentive Regulation and Rate of Return Regulation*. Before the Federal Communications Commission on behalf of the United States Telephone Association. July 21, 1989.

Critique of Stand-Alone Cost Allocations. Testimony before the Public Utilities Commission of Ohio on behalf of GTE North. May 1988.

"Marginal Costs of Telephone Services in Washington, D.C." Testimony before the Public Service Commission of the District of Columbia. November 1983. Presented to Econometrics Society. 1984.

SPEECHES

"Network Externalities and Technical Standards for New Products and Services." Conference on Regulation in the Digital Age, sponsored jointly by the Brookings Institution and the CATO Institute. April 17, 1997.

"Competition the Easy Way (or the Hard Way)." Presentation at the Primer Encuentro Regional de Órganismos Reguladores de Telecomunicaciones de América Latina y el Caribe. Lima, Perú. May 22, 1996.

"A Future Growth of Competition in Local Telecommunications." Presented at a symposium for discussing Japanese telecommunications policy with special reference to the market dominance of NTT. Sponsored by Gakushuin University, Faculty of Economics. Tokyo, Japan. June 7, 1995.

"Trends and Information Technology." Presented to North Carolina Association of County Budget Officers. Atlantic Beach, North Carolina. August 5, 1994.

"Comments on Issues of Costing and Pricing." Presented at the International Conference on the Economics of Radio-Based Telecommunications, CREST. Paris, France. June 23-24, 1994.

"Transition to Competition Outside the United States: Current Trends and Issues." Speech presented at The Brookings Institution. Washington, D.C. October 15, 1992.

With John Haring. "A Theory of Price Discrimination Under Regulated Competition: With Application to Long-Distance Telecommunications." Presented to International Telecommunications Society, ITS '92. Sophia Antipolis, France. June 14-17, 1992.

With Charles L. Jackson. "What Can You Do With a Cordless Telephone?" Presented at the 19th Annual Telecommunications Policy Research Conference. Solomons Island, Maryland. September 30, 1991.

"Economic Issues Relating to Privatization of Telecommunications." Presented to the Conference on Network Economics. Sapporo, Japan. July 23-27, 1990.

"The Present Status of Research on Network Economics." Presented to the Institute for Posts and Telecommunications Policy. Tokyo, Japan. July 20, 1990.

"Comment on Incremental Capital Costs of Telephone Access and Local Usage." Presented at the Twentieth Annual Williamsburg Conference. Williamsburg, Virginia. December 1988.

"Aggregate Consumers' Surplus: No Apology But Some Caution." Presented at Stanford University and University of California. Berkeley, California. January 1982.

"Return for Risk and the Term Structure of Interest Rates." Presented to the Econometrics Society. Dallas, Texas. 1975.

"Analysis of Demand for Video Communication." Presented at Second Annual Telecommunications Policy Research Conference. Airlie, Virginia. 1974.

Other Consulting Assignments

Advisor to OSIPTEL (Peruvian telecommunications regulator), 1996-1997.

Advisor to Office of Utilities Regulation, Jamaica, W.I., on establishing a regulatory framework for the telecommunications sector, 1996-1997.

June 8, 1998

Exhibit 2

DECLARATION OF JAMES KELLY, III

I, James Kelly, III, do hereby declare as follows:

1. I am Chairman and CEO of KELLE Communications Group, Inc., an independent payphone service provider ("PSP") that specializes in providing payphone service at airports.

2. My company currently has contracts to provide payphone service at the following major airports:

Los Angeles International Airport
Ontario Airport
John Wayne Orange County Airport
Sacramento Airport
San Francisco International Airport
O'Hare International Airport
Midway Airport
Charlotte Douglas Airport
Atlanta Hartsfield International Airport
Washington Dulles Airport
Ronald Reagan Washington National Airport

3. At every one of the airports where my company currently has the contract, we charge a local coin calling rate of no more than \$0.35.

4. I am also familiar with the practices of other PSPs at other airports by virtue of having participated in bids at many of them, by virtue of my travel to many of these sites, and by virtue of general industry information regarding this segment of the industry. Based on this knowledge, I can state that it is the practice at every airport with which I am familiar to charge no more than \$0.35 for the local coin calling rate.

I declare under penalty of perjury that the foregoing is true and correct. Executed on 13 day of July 1998.

By: 